Application No.: Page 2

target cells bearing a B cell marker than a comparison reagent comprised of the same antibody joined to the human non-toxic RNase eosinophil-derived neurotoxin (EDN).

- 2. The reagent of claim 1, wherein the onc protein has the amino acid sequence of SEQ ID NO:1.
- 3. The reagent of claim 1, wherein the onc protein is produced by recombinant means.
- 4. The reagent of claim 3, wherein the onc protein has the amino acid sequence of SEQ ID NO:3
- 5. The reagent of claim 3, wherein the onc protein is encoded by the nucleic acid molecule identified as SEQ ID NO:2.
 - 6. The reagent of claim 1, wherein the antibody is a monoclonal antibody.
 - 7. The reagent of claim 6, wherein the monoclonal antibody is humanized.
- 8. The reagent of claim 7, wherein the monoclonal antibody is a single chain antibody.
 - 9. The reagent of claim 1, wherein the antibody is specific for B cell lymphomas.
- 10. The reagent of claim 9, wherein the antibody is selected from the group consisting of RFB4 and LL2.
 - 11. The reagent of claim 1, wherein the surface marker is CD22.
 - 12. The reagent of claim 1, wherein the surface marker is CD74.

Application No.: Page 3

- 13. (cancelled0 The reagent of claim 12, wherein the antibody is LL1.
- 14. The reagent of claim 1, wherein the onc protein is conjugated to the antibody through recombinant fusion.
 - 15. A nucleic acid sequence encoding the reagent of claim 1.
- 16. A pharmaceutical composition comprising a selective cytotoxic reagent comprising an one protein having measurable ribonucleolytic activity joined to an antibody directed against a cell surface marker specific to a B cell together with a pharmaceutically acceptable carrier.
- 17. The pharmaceutical composition of claim 16, wherein the onc protein has the amino acid sequence of SEQ ID NO:1.
- 18. The pharmaceutical composition of claim 16, wherein the onc protein is produced by recombinant means.
- 19. The pharmaceutical composition of claim 18, wherein the onc protein has the amino acid sequence of SEQ ID NO:3.
- 20. The pharmaceutical composition of claim 18, wherein the onc protein is encoded by the nucleic acid molecule identified as SEQ ID NO:2.
- 21. The pharmaceutical composition of claim 16, wherein the onc protein is conjugated to the antibody through recombinant means.
- 22. The pharmaceutical composition of claim 16, wherein the antibody is a monoclonal antibody.
- 23. The pharmaceutical composition of claim 22, wherein the monoclonal antibody is humanized.